

APPROVED	C.G. FIG.
BY	CLASS SUBCLASS
DRAFTSMAN	

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CTGCAGTCTATTGGATGAAGAGTGTACATATTCAATAATTCTAAAGTAGGCAGAAATTAAAG
 GGGATGGAATATATACTTGTACTGCCCTAGATAGTCACCAGGATGTTACAGTCTCGTT
 ACTGCTCTGAAGCCTACTGATAGAATTAATAAAACTGAGAGAGAGAGAGAGAGAGAGAGAG
 AGAGAGAGGGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG
 GAAGAAAACAAGGTSAAAGCCATCTGCTTAACCTATGTCCACATTCTCTCAAGAGCATTGCTCTA
 TTTGTAGAATTATCTATATTGTTAAGAACATCTCCATTGTTAAGATTGTGGCTGGAGATC
 CAGCTCTGTTGATAAAAGTGCCTGCCTAACATGCATGAAGTCCTAGGTTCTATTCCAAGGCTAC
 ATAAAACCTTGTGTTGTGATGAATGCCGTAACTCCCAGTACGCAGCAAGGAGAGACAAGGAGGA
 TCAGAAGCTTAAGGACATCATTGTACATAGTGAGTTGAGGAAAGCTGAGGTTACATGGAAC
 TCTCTCTCTCAAAAACAAAACAAAACAAAACCTCTACTAATATTCTGGATTCTGTT
 TGATTTTAGGATCTCAAGAGCATGCTGACGTCATTATGTGTTCCATCAGATACAGACAGAG
 ATCATAAACATTAACTCATTGATTATATGTTGAGAGTGTCCCTCAAGAACCAATGCCAAC
 ATCCACTGAGGATACACGGAAGCTTAGAAAATCTCTAATTAAAATCCTGACATAATGGAAGTGC
 TCACAAACCAGCCAACACCTAATAAAACCAGTGGCAAGAGCAACAACTCGGCATTTCTACTT
 TGAATCCTGCCAACCCCCCTTTCTAGCCATACTCTGCTACTCATAGCATATACTGTGATCCTA
 ATCATGGCATTGGAAACCTCTCTTATCATCATCATCTTAAGAAACAGAGAGAAGCTC
 AAAATGTTACCAACATACTGATTGCCAACCTGCTCCCTCTGACATCTGGTGTGTCATGTG
 CATCCCTTACGGTCATCACACTGTGACCGACTGGTATTGGAACACTATGTGAAA
 CTCACTCCTACGTGCAAAGTGTCTCAGTTCTGTGTCATATTCTCCCTGTGTTGATTGCTA
 TTGAACGATATCAGCTGATTGTAACCCCCCTGGCTGGAAACCCAGAGTAGCTCATGCCTATTG
 GGGGATCATCTGATTGGCTCATTTCTCTGACATTGTCTATTCCCTTATTCTGCTCTACCAC
 CTCACCAATGAGCCCTTCATAATCTCTCTCCCTACTGACATCTACACCCACCAGGTAGCTT
 GTGTGGAGATTGGCCTCTAAACTGAACCAACTCCTCTTCTACATCATTATTATGCTCCA
 GTATTGTCCTCTGGTTTCATTCTATCTGCTACCTGAAGATGTTCTGCTCCGAAAA
 AGAACTAGGCAGGTGGACAGGAGAAAGGAAATAAGAGCCGTCTCAATGAGAACAGAGGGTAA
 ATGTGATGTTGATTCCATCGTAGTGACTTTGGAGCCTGCTGGTTGCCCTGAACATTCAA
 TGTGATCTCGACTGGTATCATGAGATGCTGATGAGCTGCCACCACGACCTGGTATTGAGTT
 TGCCACTTGATTGCTATGGTTCTACTTGCTAAATCCTCTCTTATGGATTCTCAACAAAA
 ACTTCCAGAAGGATCTAATGATGCTTATTCAACACTGTTGGTGTGGTGAACCTCAGGAAAGTTA
 TGAAAATATTGCCATGTCTACTATGCACACAGATGAATCCAAGGGATCATTAAACTGGCTCAC
 ATACCAACAGGCATATAGAAACTGGTAAGCAAAATCAAAGCCCTCTGTTATGAAAGAAAGAGA
 AGAAATAGTATGGAATAGGGCAAGGTGCAGAGGAAGCCAGACTTAAACACATAATATCTTGGG
 CCCAGTTGCTTAAGTAAAGCATGTCTACTCCATTGCCATAGAACACACAGAGATTATC
 CCTACCCCTTCTTTCTTGGAAAGATAATAACTTAAACACCTAGACATCATTACTGAG
 GAAGAGAACAAAATGAGAGAGCATACAAGGACAGCAGAGATGCTGGGGTACAAATTACGT
 TATTGCTGGAATAGCTAGAAAGTTATTAGTGTGCTGCAG (SEQ ID NO:1)

FIGURE 1

APPROVED BY	O.G. FIG. CLASS	SUBCLASS
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underlined = deleted in targeting construct

[] = sequence flanking Neo insert in targeting construct

[CTGCAGTCTATTGGATGAAGAGTGTACATATTCAATAATTCTAAAGTAGGCAGAAAT
 TAAAGGGATGGAATATATACTTGTACTGCCCTAGATAGTCACCAGGATGTTGTTACAG
 TCTTCGTTACTGCTCTGAAGCCTATACTGATAGAATTAAATAAAACTGAGAGAGAGA
 GAGAGGGACAGAGAGAGAGAGGGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGA
 GAGAGAGAGAGAGAGAGAGAAAACAGGTSAGGCCATCTGCTTAACCTATGTCCACAT
 TCTCTCAAGAGCATGTCCTATTGAGAATTATCTATATTGTTAAGAACATCTCATT
 GTTAAGATTTGTCGGGCTGGAGATCCAGCTCTGTTGATAAAAGTGCTTGCTAACATGCAT
 GAAGTCCTAGGTTCTATTCCCAGGCTACATAAAACCTTGTGTTGATGAATGCCGTGA
 ATCCCCAGTACGCAGCAAGGAGAGACAAGGAGGATCAGAACGCTAACAGACATCTTGT
 CATACTGAGTTGAGGAAAGCTGAGGTTACATGGAACATCTCTCTCTCAAAAACAAAAC
 AAAACAAAACAAACCTCTACTAAATATCTGGATTCTGTTGATTAGGATCTCAAG
 AGCATGCTGACGTCAATTATGTTCCATCAGATACAGACAGAGATCATAAACATTAA
 CTCATTGATTATATGTTGAGAGTTGCTCTCAAGAACCAATGCCAACATCCACTGAGG
 ATACACGGAAGCTTAGAAAATCTCTAATTAAATCCTGACATAATGGAAGTGCTCACAA
 CCAGCC]AACACCTAAATAAAACAGTGGCAAGAGCAACAACCTGGCATTTCATCTTGT
 AACCTCTGCCAACCCCTTTCTAGCCACTCTTGCTACTCATAGCATATACTGTGATCC
 TAATCATGGCATTGGAAACCTCTCTTATCATCATCATCTTAAAGAAACAGAGAG
 AAGCTAAAATGTTACCAACATACTGATT[GCCAAACCTGTCCTCTGACATCTGGTG
 TGTGTCATGTGCATCCCTTTACGGTCATCTACACTCTGATGGACCACTGGTATTGGG
 AACACTATGTGAAACTCACTCCTACGTGCAAAGTGTCTCAGTTCTGTGTCATATTG
 TCCCTTGTTGATGCTATTGAAACGATATCAGCTGATTGTGAACCCCCGGCTGGAAA
 CCCAGAGTAGCTATGCCATTGGGGATCATCTGATTGGCTATTCTGACATTG
 TCTATTCCCTTATTCTGTCCTACCACTCACCAATGAGCCCTTCATAATCTCTCTC
 CCTACTGACATCTACACCCACAGGTAGCTGTGAGATTGGCCTCTAAACTGAAC
 CAACTCCCTTTCTACATCATTATTTGCTCCAGTATTGTCCTCTGGGTTTCATT
 CTTATCTGCTACCTGAAGATCGTCTGCTCCGAAAAAGAACACTAGGCAGGTGGACAGG
 AGAAAAGAAAATAAAGAGCCGCTCAATGAGAACAAAGAGGTAATGTGATGTTGATTCC
 ATCGTAGTGACTTTGGAGCCTGCTGGTTCGGCTGAACATTTCATGTCATCTGAC
 TGGTATCATGAGATGCTGATGAGCTGCCACACGACCTGGTATTGTTGCACTTG
 ATTGCTATGGTTCTACTTGCTAAATCCTCTTTTATGGATTCTCAACAAAACCTTC
 CAGAAG]GATCTAATGATGCTATTCAACACTGTTGGTGTGGAACCTCAGGAAAGTTA
 TGAAAATATTGCCATGTCTACTATGCACACAGATGAATCCAAGGGATCATTAAACTGGC
 TCACATACCAACAGGCATATAGAAAAGTGGTAAGCAAAATCAAAGCCCTCTGTTATGAAA
 GAAAGAGAAGAAATAGTATGGAATAGGGCAAGGTGAGAGGAAGCCAGACTAAACACAT
 AATATCTTGGGCCAGTTGCTTTAAGTTAACGATGTCTACTCCATTGCCATAGAA
 CACACAGAGATTATCCCTACCCCTTTCTTTCTGGAGAAGATAATAACTAAACA
 ACCTAGACATCATTACTGAGGAAGAGAACAAAATGAGAGAGCATAAAGGACAGCAGAG
 ATGTCTGGGTACAAAATTACGTTATCGCTGGAATAGCTAGAAAGTTATTGTTGTC
 TGCAG (SEQ ID NO:1)

FIGURE 2A

APPROVED	O.G. FIG.
BY	CLASS SUBCLASS
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Gene Sequence Structure

*

846 bp

Sequence Deleted

1047 bp

Size of CDS: 2281 bp



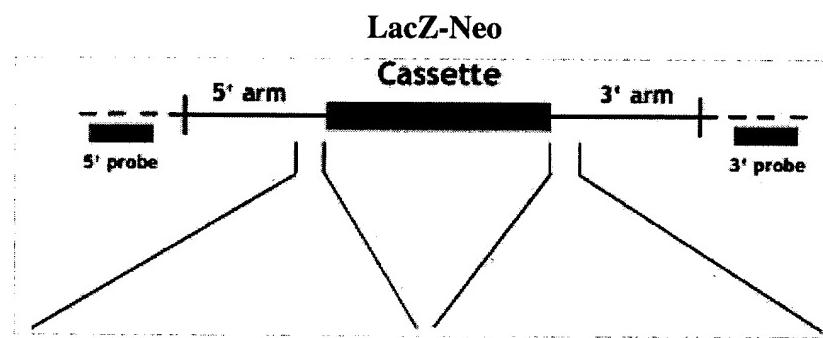
Targeting Vector* (genomic sequence)

Construct Number: 2762

Arm Length:

5': 5 kb

3': 0.5 kb



— Targeting Vector

- - - - Endogenous Locus

* Not drawn to scale

5' > TTTAGGATCTCAAGAGCATGC
TGACGTCATTATGTGTTCCATC
AGATACTGACAGAGATCATAAACAA
TTTAACTCATTGATTATATGTTGA
GAGTTGTCCCTCAAGAACCAATGG
CCAAACATCCACTGAGGATACACG
GAAGCTTAGAAAATCTTAATTAA
AATCCTGACATAATGGAAGTGCTC
ACAAACCAGCC**<3'**
(SEQ ID NO:2)

5' > GCCAACCTGTCCCTCTCTGAC
ATCTTGGTGTGTGTCATGTGCATC
CCTTTACGGTCATCTACACTCTG
ATGGACCACTGGGTATTGGGAAC
ACTATGTGAAACTCACTTCCTAC
GTGCAAAGTGTCTCAGTTCTGTG
TCCATATTCTCCCTTGTGTTGATT
GCTATTGAACGATATCAGCTGATT
GTGAACCCCCG**<3'**
(SEQ ID NO:3)

FIGURE 2B